Oil Field Environmental Incident Summary

Responsible Party: OASIS PETROLEUM NORTH AMERICA LLC **Well Operator:** OASIS PETROLEUM NORTH AMERICA LLC

Well Name: HELLING TRUST 11-15H

Field Name: ALKALI CREEK Well File #: 17636

Date Incident:10/17/2015Time Incident:23:00Facility ID Number:County:MOUNTRAILTwp:154Rng:94Sec:15Qtr:

Location Description: From 1804, go south 1 mile on 101st Ave NW, then east 1 mile on 54th St

NW, then south 2 miles on 100th Ave NW, then east 1.3 miles on 52nd St NW

Followup

Units

to location.

Submitted By: Casey Benth Received By:

Contact Person: Dustin Anderson

1001 FANNIN STE 1500 HOUSTON, TX 77002

General Land Use: Well/Facility Site Affected Medium: Topsoil

Distance Nearest Occupied Building:0.5 MileDistance Nearest Water Well:0.5 Mile

Type of Incident: Blowout

Release Contained in Dike: Unknown Reported to NRC: Yes

	Spilled	Units	Recovered	Units
Oil	2500	Barrels	2715	Barrels
Brine	2500	Barrels	13330	Barrels
Other			2495	barrels

Description of Other Released Contaminant:

Other is a mix of oil and water. Cwv 10/22/15 updated.

Inspected: Written Report Received: Clean Up Concluded:

Risk Evaluation:

High risk

Areal Extent:

Approx. 200 yards SW of location

Potential Environmental Impacts:

Moderate

Action Taken or Planned:

To be determined

Wastes Disposal Location: Oasis Disposal

Agencies Involved:

Updates

Date: 10/19/2015 Status: Correspondence Author: O'Gorman, Brian

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location at 13:45. 59 degrees F, mostly cloudy, SW wind 0-5 mph. Met with the company representative and NDIC representative. At the time of inspection, the well was continuing to spray liquids to the northwest, across the access road to the White Earth River. Due to dangerous conditions, observations of the impacted areas were made west of the well pad away from the "hot" zone. According to the company rep and NDIC rep, most of the spray was puddling on the well pad where it was being removed from a holding area in the SW corner of the well pad. Vegetation and soils to the southwest and northwest of the well pad were visibly stained with liquid from the spray. Photos were taken of the well pad, impacted areas and oil-absorbent booms on the White Earth River, which was only visible from the road on the bluff above the White Earth River valley. Further investigation will be completed when well is shut in, and area is safe for travel.

Date: 10/19/2015 Status: Reviewed - Follow-up Required Author: Cooper, Mike

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

ER call - Received 11:37 a.m. Arrived on site at 3:19 p.m. Temp 66 degrees, wind NNW at 5-10 mph. At the time of the inspection, oil well was still unstable and misting to the NW. The mist covered a majority of the vegetation surrounding the location to the NW. Mist was carried to the NW in a corridor about 1000 ft long and 500 ft wide. There is a steep drop-off on NW side of well pad. Mist that was carried over a long distance seemed to be atomized within the corridor. Talked with NDIC rep and Oasis contact rep about possible water contamination in White Butte Creek. Oasis crew has boomed off 3/4 mile starting north of well pad and going every 100 ft to the road crossing to the SE. Visible sheen observed by NDIC and Oasis reps within this area. Past the road crossing, Oasis crews have boomed off every 400 ft to the mouth of the bay (Lake Sakakawea). Background, upstream and downstream samples were taken by Oasis subcontractors. Updated local emergency manager assistant about the situation. Majority of contaminant was being recovered by vac truck crews and haulers. Heavy product was observed downslope on west side of pad, and this has been diked off with multiple dirt berms. Sampling and follow-up is required.

Date: 10/20/2015 Status: Inspection Author: O'Gorman, Brian

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location at 11:15. Met with company representative and well shutdown crew. According to the rep, the well had been shut in at 10:51. Cleanup was in progress, and plans were made to sample the river once the road accessing the river was made available for travel.

Collection of water samples commenced at 13:30.

Collected five water samples along the river for Group 190 and diesel range organics (DRO) laboratory analysis. One sample was collected north of the release for a background, and four samples were collected at points nearest the impact area down-gradient to an area along U.S. Army Corps of Engineers property, up-gradient of White Earth Bay.

Background sample location: 48.16342, -102.89591.

Sample location 2: 48.15401, -102.75322.

Sample location 3: 48.16614, -102.74455.

Sample location 4: 48.16847, -102.75835.

Sample location 5: 48.17081, -102.75835.

Oil sheen was observed at locations 2, 4 and 5. A majority of the sheen was contained by the oil-absorbent booms up-gradient of location 4.

Futher followup needed to assess soils and vegetation impacted off the well pad. Continued observations and lab results are also needed for White Earth River.

Company is submitting a work plan to the NDDoH and will conduct daily water monitoring for the river and bay.

Further followup and continued communications are needed.

Date: 10/21/2015 Status: Inspection Author: O'Gorman, Brian

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location at 12:00. 48 degrees F, sunny, west wind 5-15 mph.

Met with representatives from Oasis, EPA, U.S. Fish & Wildlife and MHA Nation. Discussed sampling locations and frequency; contractors on site for water and soil cleanup and assessment; availablility of lab results (possibly 10/23/15); notifying stakeholders downstream of the release; securing booms more tightly along river; and collecting a water sample from the New Town water plant raw intake location.

Oasis representative agreed to recommendations and will incorporate them into the company's work and review plan, which will be provided daily to the agencies.

Arrived at the New Town water plant with an Oasis representative at 16:00. Collected water samples from the raw water intake for diesel range organics (DRO), volatile organic compounds (VOC), total organic carbon (TOC) and Group 190 analysis. Oasis representative split the sample and will submit the samples to the company's own lab for the same analytical parameters.

More followup needed.

Date: 10/21/2015 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 15:51 10/21/2015.

Inspected extent of impact area and observed the booms placed in the White Earth River. Suggested to responsible party that they place more skirted containment boom in creek to better confine the oil sheen on top of the water.

Sampled Lake Sakakawea where the White Earth River enters White Earth Bay. Samples taken for Group 190, DRO, VOC's.

More follow-up is necessary.

Date: 10/22/2015 Status: Inspection Author: O'Gorman, Brian

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location at 13:30. 61 degrees F, sunny, SE wind 15-25 mph.

Met with Oasis representatives to discuss the operations and inform the company that additional water samples were going to be collected at two additional points along the White Earth River. The first water sample was collected at 15:40, approximately 1000' downstream of Oasis's dedicated point 5. Second water sample was collected upstream of Oasis's dedicated point 1. Both samples will be transported to the State laboratory 10/23/15, for Group 190, DRO and VOC analysis. No oil sheen was observed at either location during the sampling.

Observations and photos were taken of the impacted areas off and on the well pad and at the water sampling locations. During the afternoon, it was observed that straw wattles had been placed along drainage areas southwest and northwest of the well pad, to protect against potential runoff of residual oil from the impacted vegetation. All standing or puddling oil/liquids that were observed near the well pad on 10/21/15 had been removed and were no longer visible.

More followup needed.

Date: 10/24/2015 Status: Inspection Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location at 10:30 am. 34 degrees F, cloudy with light rain. Wind light out of the west at 5-10 mph.

The NDDoH rep talked with one of the landowners and provided contact information to answer questions they might have pertaining to the cleanup.

Met with Oasis representative on site at 11:00 a.m. Rep gave an update on the site cleanup. The company has added more booms above Site #1 and below Site #5. They plan to bring in a vacuum truck Sunday Oct 25 and remove all the material the booms have caught. NDDoH rep collected water samples (diesel range organics, volatile organic compounds, and Group 190) at three different locations on the White Earth River. The locations were Oasis's dedicated point 1 (GIS N48.17082, W102.76196), point 1.5, (GIS N48.16848, W102.75831), and point 5 (GIS N48.15403, W102.75324). Sheen was visible on the water above the booms at point 1 and point 1.5. No sheen was observed at point 5.

Observations and photos were taken at all three points. In addition, the NDDoH rep walked downstream 500 yards and did not observe any sheen on the White Earth River below point 5. Further followup needed.

Date: 10/25/2015 Status: Inspection Author: Washek, Sandi

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on site at 3:30. Weather was sunny with wind out of the SE at 10 mph. Temp was about 53 degrees F.

Met with company reps and was informed they plan to do a test sometime next week to see if they can clean the oil debris off the trees and shrubs. They also will try to collect the sheen debris by the booms, because the product was not concentrated enough to use a vac truck.

NDDoH inspector also collected a sample of the production water from the source site. Inspected the river starting at the #5 site working upstream. Did not see any sheen on the water past the #5 site. Collected water sample at site #2 (1.5 on stick) and collected pictures. Additional followup needed.

Date: 10/26/2015 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 15:45 10/26/2015.

There are hay buffers and erosional control measures in place to prevent runoff of oil to the White Earth River. Requested the company representative develop a plan in case of an early blizzard or cold weather. The responsible party has an open line of communication with the landowners. The company is going to work with a consultant to test a cleaning method for the oil-impacted trees.

More followup is necessary.

Date: 10/27/2015 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 16:00, 10/27/2015.

Cleanup continues at location. The company is experimenting with the use of in situ treatment of the impacted soils next to the wellpad.

More followup is necessary.

Date: 10/27/2015 Status: Correspondence Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Received test results from the responsible party. The sample locations were on the White Earth River and show minimal impacts to the river. More sampling is necessary to confirm test results. The White Earth River will continue to be boomed to prevent any possibility of impacts by hydrocarbons related to the blowout of the Helling Trust 11-15H.

More followup is necessary.

Date: 10/29/2015 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 13:50 on 10/29/2015.

Samples taken throughout area at location 1, 1.5, 5, and downstream. The White Earth River appears to be back to normal with some wildlife returning to the area.

More followup is necessary.

Date: 11/1/2015 Status: Correspondence Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Email from Oasis contact.

"The initial response and remediation activities conducted at the Helling Trust 11-15H lease site thus far have been successful. Threats to human and environmental receptors have been thoroughly characterized with infield screening and laboratory analysis. Water chemistry from samples collected from within the White River, Lake Sakakawea, and springs within the Helling Trust properties indicate that these environmental receptors have not been impacted by brine and petroleum hydrocarbons; impacts remain near or below the laboratory detection limits for DRO, GRO and BTEX. Based on this information, Oasis will suspend its emergency response program at this site. Remediation activities are ongoing and will include monitoring efforts for the White Earth River and nearby springs among others. However, with this suspension we propose suspending daily update emails. This would mean that all future updates will be through progress reports provided directly to the North Dakota Department of Health. Feel free to contact me with any question regarding these suspensions."

Oasis will be submitting twice weekly email updates for the time being, with this being subject to change depending on test results.

More followup is necessary.

Date: 11/5/2015 Status: Inspection Author: O'Gorman, Brian

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location at 12:45. 35 degrees F, light rain, NW wind 10-15 mph. Met with Oasis representative and discussed operations and current assessment of the area. Walked the well pad and areas north, west and south just adjacent to the well pad. A majority of the off-site impacts had been excavated and replaced with clean soil. Vegetation had been removed from the hill west of the road, and impacts appeared low on the vegetation. The trees to the southwest had been sprayed with a chemical agent and still showed a slight greasy film on the branches and trunks. The retention berms along the drainageways did not have any water or product standing from the recent rainfall. Command trailers had been removed from the west well pad, and daily monitoring was being conducted by on-site visits daily. Further followup needed.

Date: 11/9/2015 Status: Correspondence Author: O'Gorman, Brian

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Received an email on 10/23/15 regarding ownership of the well and surrounding area. Email asks that any reports, documents and results of testing be sent to the trust agent. Email and contact added to the report folder.

Date: 2/1/2016 Status: Correspondence Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Meeting regarding Helling Trust 11-15H cleanup.

Attendees:
NDDoH
Oasis Petroleum with legal counsel
Helling Trust manager with legal counsel
Helling Trust members

Overview:

Meeting to go over the impacts of the well blowout on the Helling Trust property and to open communication between the company and the Helling Trust manager.

Outcome:

NDDoH made several suggestions to further delineate the impacted area. An on-site meeting is going to take place the week of February 15, 2016.

Date: 6/23/2016 Status: Inspection Author: Suess, Bill

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Visited the site on 6/15/2016. Inspected the impacted areas with S. Stockdill to get a more complete picture of what needs to be done to satisfy NDDoH requirements. Many of the impacted trees to the north and west of the well pad show signs of recovery. Have requested that Oasis wait for at least one additional growing season before making a determination as to which trees need to be removed. Observed ongoing excavation in west drainage area and walked the impacted area of the wooded draw. Also noted a few other areas that will need to be addressed.

Met with Oasis and Western Plains Consulting on 6/20/16 to discuss sampling plans within the west dainage area. There will be a combination of split and side-by-side sampling. The NDDoH and Oasis will conduct split sampling, and Western Plains will conduct concurrent side-by-side sampling with NDDoH/Oasis.

Date: 6/27/2016 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 6/27/2016.

Excavation continues to the immediate west of the well pad. Depth of excavation varies from one to several feet below grade. Area that had the prescribed burn to the north of the well pad earlier this summer is coming along, with vegetation starting to come up.

Continued monitoring will be necessary to ensure proper cleanup.

Date: 7/14/2016 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 10:00, 7/14/2016.

Sampling of the floor and walls of the excavation between the wellpad and the township road. Three composite samples of the floor and walls. Samples were collected and will be sent to an approved lab, sifted and split into four groups for analysis of cations and anions, and the diesel range organics (DRO) samples will be sent to one approved lab to be analyzed.

More follow-up is necessary.

Date: 8/10/2016 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 9:30, 8/10/2016.

Took samples from White Earth River at designated sampling locations.

More follow-up is necessary.

Date: 9/1/2016 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 10:45, 9/2/2016.

Overview of work being done with company contact. Sampling of domestic water source for residence down the hill.

More follow-up is necessary.

Date: 11/3/2016 Status: Inspection Author: Stockdill, Scott

Updated Oil Volume:

Updated Salt Water Volume:

Updated Other Volume:

Updated Other Contaminant

Notes:

Arrived on location 6:00 11/3/2016.

Excavation on the west side of the well pad has been backfilled to grade after the installation of an advanced recovery system throughout the northern portion of the excavation. Impacted area north of the fence on the north side of the wellpad is revegetating nicely however this area will need continued monitoring to ensure that remediation is properly done.

More Follow up is necessary to ensure proper remediation.